

Aphodiinae from Sabah (Coleoptera: Scarabaeidae)

by

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With 10 figures

ABSTRACT

Twelve species of Aphodiinae are listed from Sabah: *Saprosites crockerensis* sp. n. is described and illustrated, *Ataenius kelatianus* Balth. is synonymized with *A. orbicularis* A. Schm. Information is added on the distribution of each species.

By the courtesy of Dr. Ivan Löbl I had the opportunity to study the Aphodiinae from Sabah (NE Borneo) collected by him and Dr. Daniel Burckhardt in 1987 and by Dr. Aleš Smetana in 1988. Even though small, the material is interesting from a biogeographical point of view.

Material was examined from following collections: National Museum, Prague (NMP), Muséum d'Histoire naturelle, Genève (MHNG), Institute of Systematic and Experimental Zoology, Kraków (ISEZ). The material is deposited in the MHNG excepted where stated.

***Aphodius (Pharaphodius) diadema* Wiedemann (Figs 1-2)**

Material examined. Crocker Range, Tambunan distr., Tambunan, 15-20.V.1987, at light, (28 ex.) leg. Burckhardt et Löbl; Mt. Kinabalu, Poring Hot Springs, 485 m, 14-31.VIII.1988, humid Dipterocarpaceae forest, (1 ex.) leg. Smetana.

Remarks: *A. diadema* is very close to *A. marginellus* (Fabr.) and *A. priscus* Motsch. but differs in the shape of male genitalia (STEBNICKA, 1986). It has been recorded from Java, and I have seen specimens from Bali.

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Aphodius (Trichaphodius) reichei Harold

M a t e r i a l e x a m i n e d . Mt. Kinabalu, Poring Hot Springs, 485 m, 14-31.VIII.1988, humid Dipterocarpaceae forest, (9 ex.) leg. Smetana.

R e m a r k s . Widespread species, occurs in South China, Taiwan, Malaysia, the Philippines, New Guinea and Northern Australia.

Aphodius (Pleuraphodius) lewisi Waterhouse

M a t e r i a l e x a m i n e d . Mt. Kinabalu, between "Headquarters" and Liwagu River, 1495 m, 9-13.VIII.1988, (1 ex.) leg. Smetana.

R e m a r k s . Widely distributed species in the Oriental Region.

Ataenius (australasiae) australasiae (Bohemann)

M a t e r i a l e x a m i n e d . Crocker Range, Tambunan distr., Tambunan, 15-20.V.1987, at light, (130 ex.) leg. Burckhardt et Löbl.

R e m a r k s . The species is discussed and illustrated by STEBNICKA (1990).

Ataenius (californicus) orbicularis A. Schmidt (Fig. 3)

Ataenius kelatianus Balthasar, 1965 — syn. nov.

M a t e r i a l e x a m i n e d . Holotype of *kelatianus* — Borneo (NMP). Crocker Range, Tambunan distr., Tambunan, 15-20.V.1987, at light, (2 ex.) leg. Burckhardt et Löbl; Kota Kinabalu, 2.VIII.1988, (13 ex.) leg. Smetana.

R e m a r k s . *A. orbicularis* is close to *A. californicus* Horn from the United States and Mexico. It differs from *A. californicus* in having pronotum with more broadly rounded posterior angles and with a mixture of close, very fine and moderately coarse punctures. The species is known from Vietnam, Thailand, West Malaysia, Borneo and Micronesia (Mariana, Caroline, Marshall and Samoa Islands).

Ataenius peregrinator Harold

M a t e r i a l e x a m i n e d . Crocker Range, Tambunan distr., Tambunan, 15-20.V.1987, at light, (1 ex.) leg. Burckhardt et Löbl.

R e m a r k s . The species is known from Sulawesi, Borneo, Sumatra, Java, Bali, the Philippines and Micronesia (Marshall, Caroline and Mariana Islands).

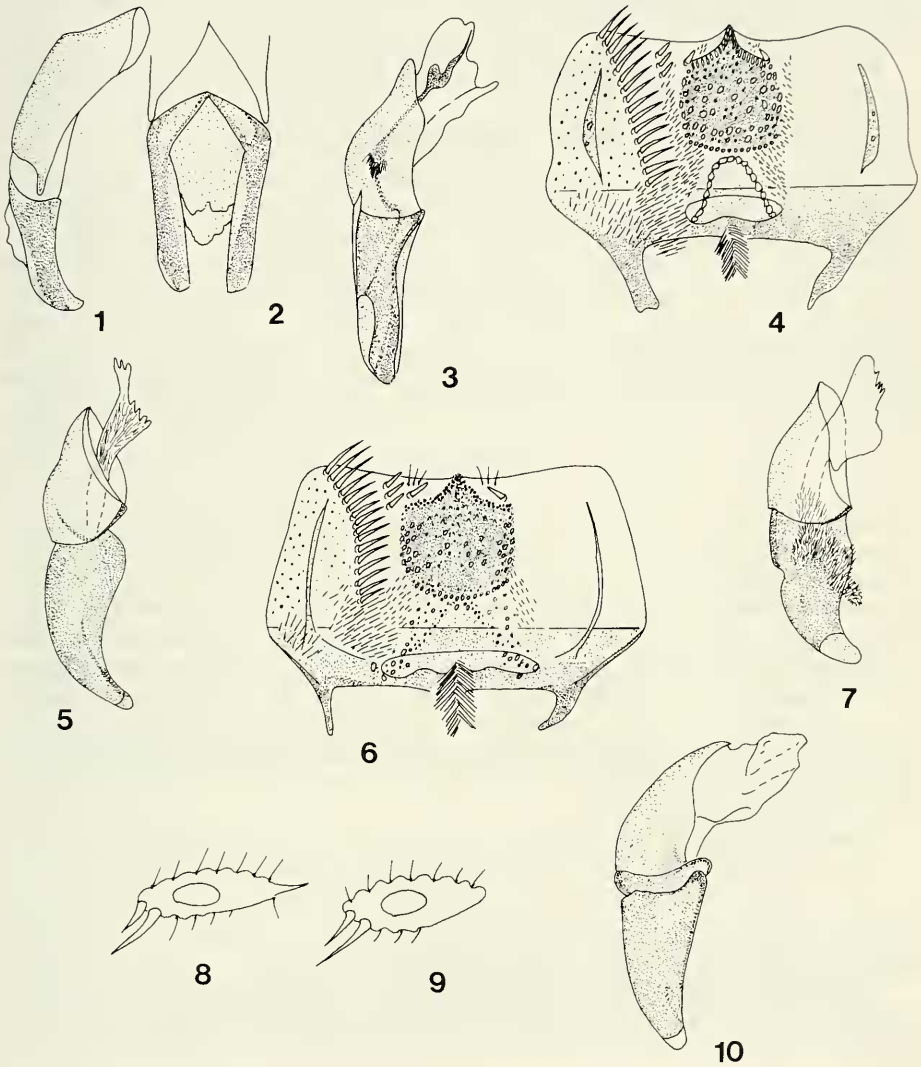
Saprosites marchionalis Harold (Figs 4-5)

M a t e r i a l e x a m i n e d . Mt. Kinabalu, Liwagu Trail, 1580 m, 27.IV.1987, under bark with fungi, (2 ex.); Crocker Range, on road Kota Kinabalu to Tambunan, 1270 m, 17.V.1987, sieved in secondary forest with *Agathis*, (3 ex.) leg. Burckhardt et Löbl.

R e m a r k s . The specimens examined vary in length from 5.5 to 6.5 mm; young individuals are shining with the microsculpture nearly invisible.

Saprosites crockerensis n. sp. (Figs 6-9)

T y p e m a t e r i a l : Holotype male: Borneo, Sabah, Crocker Range, eastern slope, 1200 m, km 63 road Kota Kinabalu to Tambunan, secondary forest of *Lithocarpus-Castanopsis*,



FIGS 1-10.

1-2. *Aphodius (Pharaphodius) diadema* Wied.: 1. aedeagus laterally; 2. paramerae dorsally.
 3. *Ataenius (californicus) orbicularis* A. Schm.: aedeagus laterally. 4-5. *Saprosites marchionalis*
 Har.: 4. epipharynx; 5. aedeagus laterally. 6-9. *S. crockerensis* n. sp.: 6. epipharynx; 7. aedeagus
 laterally; 8. apex of mesotibia in male; 9. apex of mesotibia in female. 10. *S. jacobsoni* Paul.:
 aedeagus laterally.

19.V.1987, sieved in humid gully, leg. Burckhardt et Löbl (MHNG); paratype female: Crocker Range, eastern slope, 1270 m, km 60 road Kota Kinabalu to Tambunan, 17.V.1987, sieved under old trees of *Agathis*, leg. Burckhardt et Löbl (MHNG); paratype female: same data as holotype (ISEZ).

Length 5.5-6.0 mm, greatest width 1.8-2.0 mm. Elongate, sub-parallel, shining, dark castaneous to black. Head large, convex, clypeus broadly rounded on each side of shallow median emargination, sides distinctly emarginate before laterally extended, triangular genae; clypeus very shallowly concave just behind anterior emargination with strong transverse wrinkle above this; surface of head slightly alutaceous, densely punctate and granulated, greatest convexity irregularly wrinkled, frontal suture feebly marked and punctate; above frontal suture the punctures become larger but simple with finer punctures intermixed. Pronotum rectangular without longitudinal furrow, anterior angles appear explanate from above, sides and base narrowly margined and finely crenate; anterior angles protruding and rounded, sides slightly arcuate toward inconspicuously emarginate posterior angles; surface everywhere with a mixture of very fine and moderately coarse punctures, the latter irregularly spaced on the disc, closer toward the sides, rugose at anterior angles. Elytra nearly two times as long as pronotum, humeral denticles not strong, rounded; striae deep, coarsely and densely punctate, the punctures distinctly crenating the sides of the intervals; intervals shining with scattered, minute punctures, humeri closely punctate. Mesosternum not quite but almost at same level as metasternum, strongly carinate between coxae, intercoxal carina dimidiate with triangular depression within; prosternal process triangular, convex, transversely concave medially; metasternum with moderately impressed midline and shallow depression at middle, disc minutely alutaceous and very finely punctate; abdominal sterna with an anterior border of rather deep crenate-scabrous sculpture which becomes gradually much wider at sides. Profemur with perimarginal groove, nearly twice as wide as meso and metafemora, surface shining; inner apical margin of protibia sharply angular behind the protarsus; meso and metafemora without posterior marginal line; meso and metatibiae widened apically, apical edge of metatibiae with small denticles and 8-9 short intervening setae; the first segment of metatarsus a trifle shorter than the longer tibial spur and longer than the next three segments combined.

Male. Apical edge of mesotibiae slightly flattened with strong denticle on outer side.

Female. Apical edge of mesotibiae with small denticles of the same size.

R e m a r k s : The new species may be easily distinguished from the other Indo-Malayan species of the genus by the unusual sculpture of the head. The remaining characters are similar to those of *S. marchionalis* Har.

Among the representatives of *Saprosites* Redt., the apical margins of meso and metatibiae bear usually denticles, the shape and number of which are often sex dependent.

Saprosites laeviceps Harold

M a t e r i a l e x a m i n e d . Mt. Kinabalu, 1580 m, Liwagu Trail, 27.IV.1987, under bark with fungi, (1 ex.) leg. Burckhardt et Löbl; between "Headquarters" and Liwagu River, 1495 m, 12.VIII.1988, (4 ex.) leg. Smetana.

R e m a r k s . The species is known only from Borneo.

Saprosites jacobsoni Paulian (Fig. 10)

Material examined. Crocker Range, 1270 m, road Kota Kinabalu to Tambunan, secondary forest with *Agathis*, 17.V.1987, sieved near old trees, (1 ex.); Mt. Kinabalu, 1580 m, Liwagu Trail, 27.IV.1987, under bark with fungi, (1 ex.) leg. Burckhardt et Löbl.

Remarks. The species was hitherto known from Sumatra.

Saprosites malaisei Paulian

Material examined. Poring Hot Springs, 500 m, 8.V.1987, sieved from rotten wood and bark covered with fungi, (2 ex.) leg. Burckhardt et Löbl.

Remarks. The species is known from Borneo, Java, Sumatra and the Philippines.

Saprosites difficilis Harold

Material examined. Crocker Range, 1270 m, road Kota Kinabalu to Tambunan, secondary forest with *Agathis*, 17.V.1987, from debris under old trees, (2 ex.); Poring Hot Springs, 550-560 m, Dipterocarpaceae forest, 9.V.1987, sieved from rotten wood, (1 ex.) leg. Burckhardt et Löbl.

Remarks. The species is known only from Borneo.

FURTHER MATERIAL

Following specimens were not identified in the absence of sufficient material.

Saprosites japonicus — group:

Poring Hot Springs, Langanan river, 850 m, 14.V.1987; Bat Cave, 10.V.1987, (2 ex.); Mt. Kinabalu, Liwagu Trail, 1580 m, 27.IV.1987 (4 ex.), leg. Burckhardt et Löbl.

Saprosites pygmaeus — group:

Poring Hot Springs, 500 m, 7.V.1987, (1 ex.) leg. Burckhardt et Löbl.

REFERENCES

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